



CONECTA PEME MEDRAR PROJECT



Subsidised by the Galician Innovation Agency
Supported by the Department of the Economy, Trade and Industry of the Government of Galicia
Co-financed by the European Regional Development Fund (ERDF) of the European Union

Improvement of small wastewater systems

Project Description

The MEDRAR project is developing a modular wastewater treatment system applicable to small communities and urban/industrial areas.

This modular system is designed as a more sustainable alternative to the systems currently used in villages with few inhabitants, often burdened with design defects or high operating costs.

The objective is to assess and validate wastewater treatment technologies based on a system of combinable LEGO® blocks. It seeks to recover the organic matter and nutrients from the water with an advanced control of micro-pollutants and pathogens. The following technologies will be assessed in real environments:

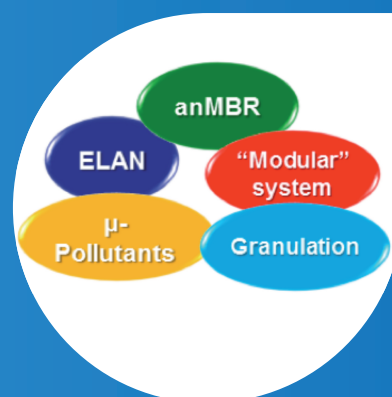
- Anaerobic treatments to produce energy.
- Aerobic processes based on bio-films: autotrophic denitrification (ELAN®), bio-filtration and aerobic granulation processes.

- Aerobic processes based on membranes for water for re-use.
- Tertiary sanitation and filtration treatments: ozone, activated carbon and filtration with mussel shells, etc.

For each type of wastewater – from combined or separate sewerage systems – the modular system will allow discharge criteria to be obtained according to the final destination of the treated water – re-use, discharge to a water course, use as a fertiliser, etc.

The various modules will be integrated with a control system developed specifically for this purpose. The application of these technologies, will not be limited to the smallest plants since they could also be implemented in larger sizes.

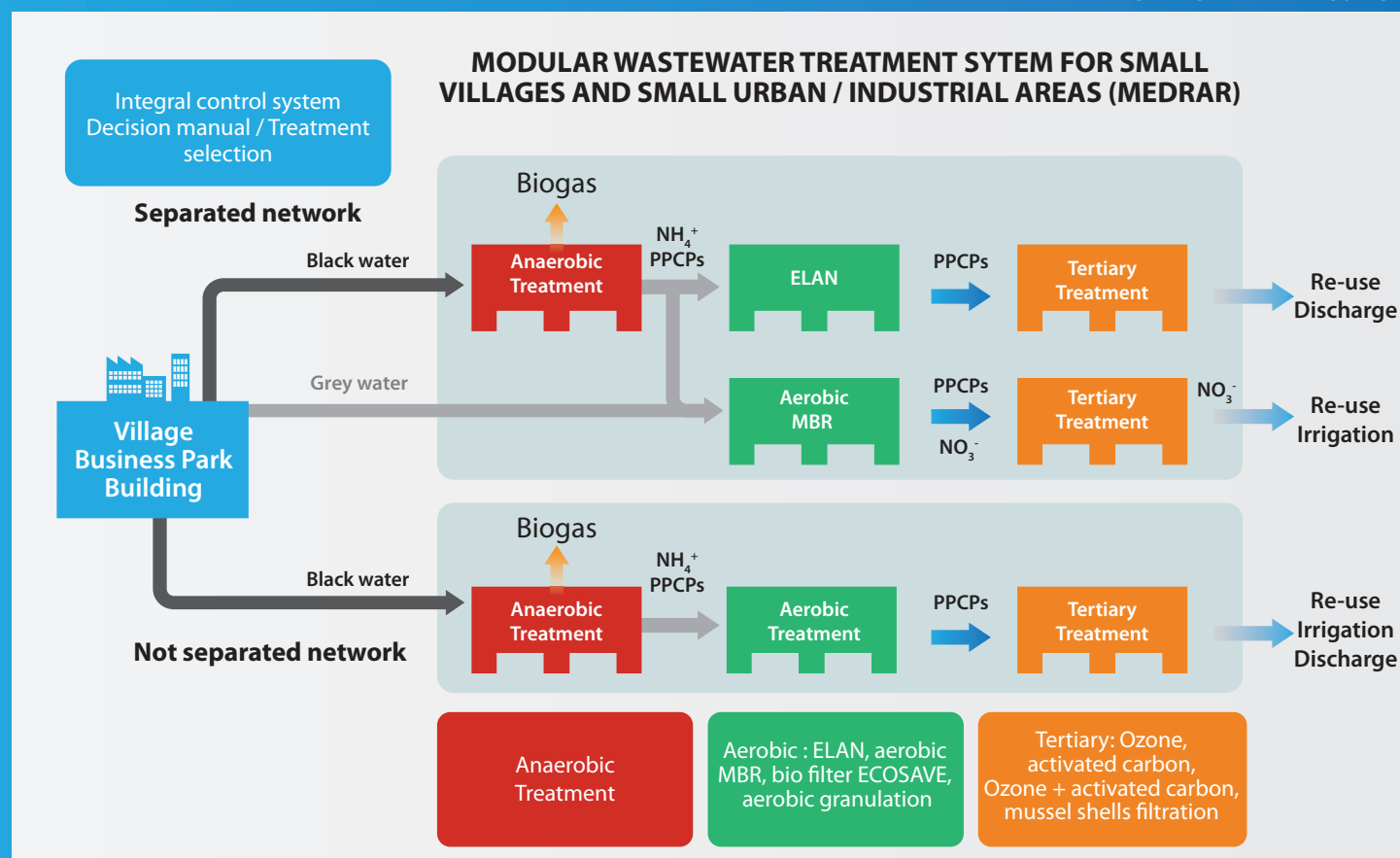
The result will be adapted to the features and requirements of each area that allow energy self-sufficiency and the re-use of the water, thus reducing the costs of the water and its environmental impact.



Location: Business Centre in "Porto do Molle" Business Park, of the Vigo Free Port Consortium (CZPV), Nigrán (Pontevedra, Spain)

Duration: From 11 February 2016 to 30 November 2018

Total Budget: 557,352.00 € **Trainasa:** 136,931.00 €



PROJECT PARTICIPANTS

- Canalizaciones y Construcciones Salnes, S.L (leader)
- ASM SOFT, S.L.
- Tratamiento Industrial del Agua, S.A.



COLLABORATING PUBLIC ORGANISMS

- University of Santiago de Compostela
Environmental and Bio-processes Engineering Group
- University of Vigo
Chemical Engineering Group



Universidade de Vigo

DETAILS OF FUNDING

Funding: CONECTA PEME programme to promote cooperation between SMEs and other agents in the regional innovation system. The development of this project is 80% co-financed by the European Regional Development Fund charged to the Feder Galicia 2014-2020 operational programme (OT 1. "Promotion of technological development, innovation and quality research").

Organism: Galician Innovation Agency (Gain), part of the Department of the Economy, Trade and Industry of the Government of Galicia.

Project: IN852A 2016/12

Grant: Subsidy of 40% of the approved budget.

Funding Received

Total: 307,025.00 €

Trainasa: 54,772.00 €

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